

Blue lines indicate the area meeting the ISRA Criteria; dashed lines indicate the suggested buffer for use in the development of appropriate place-based conservation measures

## KAMORTA-KATCHAL ISLANDS ISRA

### Asia Region

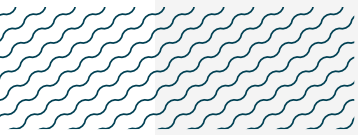
### SUMMARY

Kamorta-Katchal Islands is located within the Nicobar archipelago of India. These oceanic islands are located between the Bay of Bengal and the Andaman Sea along a roughly latitudinal gradient. The area is characterised by a variety of habitats including seagrass beds, coral reefs, and pelagic waters. The Nicobar Islands have been declared an Aboriginal Tribal Reserve Area by the Government of India. Within this area, there are: **threatened species** and **reproductive areas** (Silvertip Shark *Carcharhinus albimarginatus*).

### CRITERIA

#### Criterion A - Vulnerability; Sub-criterion C1 - Reproductive Areas

INDIA	—
0-200 metres	—
3,116.3 km <sup>2</sup>	—





## DESCRIPTION OF HABITAT

Kamorta-Katchal Islands is located within the Nicobar archipelago of India. These oceanic islands are located between the Bay of Bengal and the Andaman Sea along a roughly latitudinal gradient and are the continuation of the Mentawai Islands off Sumatra, Indonesia (Andrews et al. 2006).

The Nicobar Islands harbour a variety of marine habitats including seagrass beds, pelagic waters, and coral reefs which are characteristic of Southeast Asia and are among the most diverse of all the reef areas of India (Santhanakumar et al. 2010; Ragavan et al. 2016; Marimuthu et al. 2017; Nehru & Balasubramanian 2018). In Kamorta and Katchal Islands, coral colonies are located at depths of 3-200 m (Mondal et al. 2012; Chaturvedi 2015).

The islands experience heavy monsoonal weather from the end of May to September when the southwest monsoon sets in, as well as intermittent or light to heavy rainfall when the northeast monsoon begins in November (Tyabji et al. 2020).

The Nicobar Islands have been declared an Aboriginal Tribal Reserve Area by the Government of India. Nicobarese manage the reef areas with complex set of traditional rules, with some reef areas maintained as no-take or no-go areas (Patankar et al. 2016).

This Important Shark and Ray Area is benthopelagic and is delineated from inshore and surface waters (0 m) to 200 m based on the bathymetry of the area.

## ISRA CRITERIA

### CRITERION A – VULNERABILITY

The one Qualifying Species within the area is considered threatened with extinction according to the IUCN Red List of Threatened Species. The Silvertip Shark is assessed as Vulnerable (Espinoza et al. 2021).

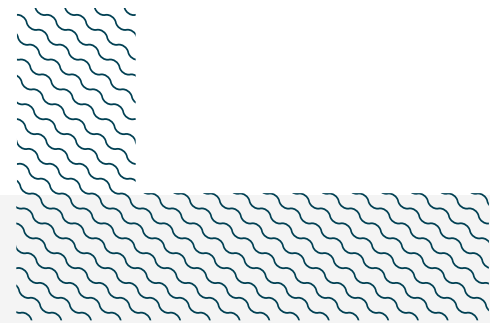
### SUB-CRITERION C1 – REPRODUCTIVE AREAS

Karmorta-Katchal Islands is an important reproductive area for one shark species.

During fish landing surveys carried out in the Andaman and Nicobar Islands between January 2017 and May 2018, and through local ecological knowledge surveys of fishers and traders between January 2017 and February 2019, catches of neonate and pregnant female Silvertip Shark were documented in the area (Tyabji et al. 2020, 2022). During the fish landing surveys, one pregnant female was landed in February 2017 measuring 199.5 cm total length (TL); one aborted embryo of 21.5 cm TL was recorded in December 2017; 25 neonates ranging in size 61-94 cm TL were sampled in March and April 2017, and in January, February, and April 2018; and >150 neonates with open umbilical scars were observed landed in April 2017 (a subsample of n = 24 of these measured 62-78 cm TL). Fishers indicated that the neonates and pregnant females were caught around Kamorta-Katchal Islands, primarily by pelagic longline, and that this was a regular and recurring event across years (Tyabji et al. 2020, 2022). Neonates were classed as being around the published size-at-birth of the species (63-81 cm TL; Ebert et al. 2021) and/or having visible umbilical scars.

Silvertip Sharks are a known reef-associated species with high residency to coral reefs (e.g., Barnett et al. 2012; Espinoza et al. 2015). Details of reproduction is limited globally but early life-stages have

been recorded on coral reef environments elsewhere in the Indian Ocean (e.g., Stevens 1984). The reefs of Karmorta-Katchal Islands provide suitable habitat for the species, with the observations of pregnant females and neonates, combined with known residency patterns, supporting the importance of the area for reproduction.



---

### **Acknowledgments**

Zoya Tyabji (Dalhousie University), Dipani Sutaria (James Cook University), and Peter M Kyne (IUCN SSC Shark Specialist Group - ISRA Project) contributed and consolidated information included in this factsheet. We thank all participants of the 2024 ISRA Region 9 - Asia workshop for their contributions to this process.

This factsheet has undergone review by the ISRA Independent Review Panel prior to its publication.

This project was funded by the Shark Conservation Fund, a philanthropic collaborative pooling expertise and resources to meet the threats facing the world's sharks and rays. The Shark Conservation Fund is a project of Rockefeller Philanthropy Advisors.

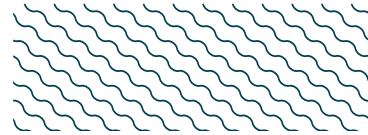
### **Suggested citation**

**IUCN SSC Shark Specialist Group. 2024.** Kamorta-Katchal Islands ISRA Factsheet. Dubai: IUCN SSC Shark Specialist Group.

## QUALIFYING SPECIES

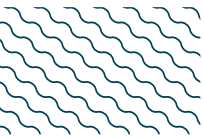
Scientific Name	Common Name	IUCN Red List Category	Global Depth Range (m)	ISRA Criteria/Sub-criteria Met									
				A	B	C1	C2	C3	C4	C5	D1	D2	
<b>SHARKS</b>													
<i>Carcharhinus albimarginatus</i>	Silvertip Shark	VU	0-800	X		X							

## SUPPORTING SPECIES



Scientific Name	Common Name	IUCN Red List Category
<b>SHARKS</b>		
<i>Carcharhinus amblyrhynchos</i>	Grey Reef Shark	EN
<i>Carcharhinus brevipinna</i>	Spinner Shark	VU
<i>Hemipristis elongata</i>	Snaggletooth Shark	EN
<i>Loxodon macrorhinus</i>	Sliteye Shark	NT
<i>Sphyrna lewini</i>	Scalloped Hammerhead	CR

*IUCN Red List of Threatened Species Categories are available by searching species names at [www.iucnredlist.org](http://www.iucnredlist.org). Abbreviations refer to: CR, Critically Endangered; EN, Endangered; VU, Vulnerable; NT, Near Threatened; LC, Least Concern; DD, Data Deficient.*





## REFERENCES

- Andrews HV, Tripathy A, Aghue S, Glen S, John S, Naveen K. 2006. The status of sea turtle populations in the Andaman and Nicobar Islands of India. In: Shanker K, Andrews HV, eds. Towards an integrated and collaborative sea turtle conservation programme in India: a UNEP/CMS-IOSEA Project Report. Mamalapuram: Centre for Herpetology/Madras Crocodile Bank Trust, 71–82.
- Barnett A, Abrantes KG, Seymour J, Fitzpatrick R. 2012. Residency and spatial use by reef sharks of an isolated seamount and its implications for conservation. *PLoS One* 7: e36574. <https://doi.org/10.1371/journal.pone.0036574>
- Chaturvedi SC. 2015. Dynamics of coral community and ecosystems of Andaman and Nicobar Islands. *National Geographical Journal of India*: 61: 409–418.
- Ebert DA, Dando M, Fowler S. 2021. *Sharks of the world. A complete guide*. Princeton: Princeton University Press.
- Espinoza M, Heupel MR, Tobin AJ, Simpfendorfer CA. 2015. Movement patterns of silvertip sharks (*Carcharhinus albimarginatus*) on coral reefs. *Coral Reefs* 34: 807–821. <https://doi.org/10.1007/s00338-015-1312-0>
- Espinoza M, González-Medina E, Dulvy NK, Pillans RD. 2021. *Carcharhinus albimarginatus* (amended version of 2016 assessment). *The IUCN Red List of Threatened Species* 2021: e.T161526A205781867. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T161526A205781867.en>
- Marimuthu N, Yogesh Kumar JS, Raghunathan C, Vinithkumar NV, Kirubakaran R, Sivakumar K, Venkataraman K. 2017. North-south gradient of incidence, distribution and variations of coral reef communities in the Andaman and Nicobar Islands, India. *Journal of Coastal Conservation* 21: 289–301. <https://doi.org/10.1007/s11852-017-0500-1>
- Mondal T, Raghunathan C, Venkataraman K. 2012. Distributional record of five scleractinian corals from Andaman & Nicobar Islands. *IOSR Journal of Pharmacy* 2: 38–43.
- Nehru P, Balasubramanian P. 2018. Mangrove species diversity and composition in the successional habitats of Nicobar Islands, India: A post-tsunami and subsidence scenario. *Forest Ecology and Management* 427: 70–77. <https://doi.org/10.1016/j.foreco.2018.05.063>
- Patankar V, D'Souza E, Alcoverro T, Arthur R. 2016. For traditional island communities in the Nicobar archipelago, complete no-go areas are the most effective form of marine management. *Ocean & Coastal Management* 133: 53–63. <https://doi.org/10.1016/j.ocecoaman.2016.09.003>
- Ragavan P, Jayaraj RSC, Muruganantham M, Jeeva C, Ubare VV, Saxena A, Mohan PM. 2016. Species composition and distribution of sea grasses of the Andaman and Nicobar Islands. *Vegetos* 29 (Special): 78–87.
- Santhanakumar J, Vinithkumar NV, Dharani G, Magesh Peter D, Abdul Nazar AK, Kirubakaran R, Venkatesan R, Kathioli S. 2010. Zooplankton abundance and diversity in Andaman Nicobar Islands, India. In: Ramakrishna, Raghunathan C, Sivaperuman C, eds. *Recent trends in biodiversity of Andaman and Nicobar Islands*. Kolkata: Zoological Survey of India, 131–140.
- Stevens JD. 1984. Life-history and ecology of sharks at Aldabra Atoll, Indian Ocean. *Proceedings of the Royal Society of London B* 222: 79–106.
- Tyabji Z, Wagh T, Patankar V, Jabado RW, Sutaria D. 2020. Catch composition and life history characteristics of sharks and rays (Elasmobranchii) landed in the Andaman and Nicobar Islands, India. *PLoS One* 15: e0231069. <https://doi.org/10.1371/journal.pone.0231069>
- Tyabji Z, Jabado RW, Sutaria D. 2022. Utilization and trade of sharks and rays in the Andaman Islands, India. *Marine Policy* 146: 105295. <https://doi.org/10.1016/j.marpol.2022.105295>